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EXAMINER

LAZARO, DAVID R

ART UNIT	PAPER NUMBER
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2155

MAIL DATE	DELIVERY MODE
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09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/612,973

Applicant(s)

SEKINE, AKIHIRO

Examiner

David Lazaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 35-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/4/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 35-41 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07/20/07.

Priority

2. This application claims the benefit of Japan Application 2002-199253 filed 07/08/2002.
3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 8/04/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

5. The drawings filed 07/07/2003 are accepted by the examiner.

Claim Objections

6. Many of the claims contain minor informalities, particularly typos. Additionally, the overall formatting makes some of the claims difficult to read due to spacing between words. The examiner requests that applicant review the claims for any informalities not found by the examiner.

7. Claims 5, 8, 9, 11, 14, 15, 16, 17, 18, 24, 27, 30, 31 and 32 are objected to because of the following informalities:

- a. In claim 5, "ach" should be "each".
- b. In claim 8, "opposit" should be "opposite".
- c. In claim 9, "xecuted" should be "executed".
- d. In claim 11, "s rves" should be "serves".
- e. In claims 14, 15, 16, 30, 31 and 32, "A synchronization method" should be "A data synchronization method" for clarity and consistency.
- f. In claim 17, "ex cuted" should be "executed".
- g. In claim 17, "on" should be "one".
- h. In claim 18, "tim" should be "time".
- i. In claim 18, "th" should be "the".
- j. In claim 24, "opposit" should be "opposite".
- k. In claim 27, "new r" should be "newer".
- l. In claim 27, "dat" should be "date".

8. Appropriate correction is required.

9. Claim 18 is dependent on claim 4. However, Claim 17 is an independent claim. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1, 2, 6, 7, 9, 10, 17, 18, 19, 22, 23, 25, 26, 33 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claims 1, 2, 6, 7, 9, 10, 17, 22, 23, 25, 26, 33 and 34 each use the language "the self". Particularly, claims 1, 2, 17 and 18 include "the self data"; claims 6, 7, 22, 23 and 25 include "the self group management data thereof"; claims 7, 10, 23 and 26 include "the self time stamp information"; claims 9, 10, 25 and 26 use "the self information apparatus management data thereof"; claims 33 and 34 use "the self information apparatus". It is not distinctly clear as to the meaning of "self" when combined with the claim language as listed above.

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13. Claims 1, 2, 6, 10, 17, 18, 22, 23, 25 and 26 include the language "fetching the newest". It is not distinctly clear as to what functionality is imparted by this language in relation to the claimed subject matter (i.e., what does is meant to update the self data thereof by fetching the newest time stamp information).

14. Claim 9 recites the limitation "the self group management data thereof". There is insufficient antecedent basis for this limitation in the claim.

15. Claim 19 recites the limitation "regarding the first and second data items". There is insufficient antecedent basis for this limitation in the claim. The examiner notes this is possibly due to an incorrect dependency. The examiner suggests making sure the dependency is correct for claim 19

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-4, 8-13, 15-20, 24-29 and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,710,922 by Alley et al. (Alley).

18. With respect to claim 1, Alley teaches a data synchronization method between a plurality of information apparatus for performing synchronization of data stored in said information apparatus, a record which forms data retained by each of said information apparatus including one or more data items, comprising:

a step, executed by each of said information apparatus when self data thereof is updated, of fetching time stamp information which indicates updating date and time for each of the data items (Col. 7 lines 47-51 and Col. 10 lines 18-39: updates are tracked through data and time information which is used in synchronizing steps);

a step, executed by a first one of said information apparatus, of transmitting the self data thereof including the time stamp information of each of the data items to a second one of said information apparatus which is a destination of data synchronization (Col. 10 lines 18-39 and Col. 11 lines 12-38: data items and the time and data information is compared between the devices); and

a step, executed by the second information apparatus upon reception of the data transmitted from the first information apparatus, of comparing, regarding a data item which is an object of updating, the time stamp information of the self data thereof and the time stamp information transmitted from the first information apparatus with each other and fetching the newest time stamp information to update the self data thereof (Col. 11 lines 12-38 and Col. 12 lines 4-31: data items are updated according to the time and data information).

19. With respect to claim 2, Alley further teaches a step, executed by the second information apparatus, of transmitting the data including the updated time stamp information of each of the data items to the first information apparatus; and a step, executed by the first information apparatus, of comparing, regarding the data item which is an object of updating, the time stamp information transmitted from the second information apparatus with each other and fetching the newest time stamp information

to update the self data thereof (Col. 11 lines 27-39: both devices exchange information for the update/synchronization of information on both devices).

20. With respect to claim 3, Alley further teaches wherein the data is formed from a plurality of data tables which are related to each other (Col. 10 line 32 - Col. 11 line 18: NUMSTORES).

21. With respect to claim 4, Alley further teaches wherein the record which forms the data includes data which indicates an attribute of the record and a data synchronization process regarding the record is performed in accordance with the attribute (Col. 11 line 43 - Col. 12 line 3: record indicators).

22. With respect to claim 8, Alley further teaches wherein each of said information apparatus includes information apparatus management data for managing access information to an opposite information apparatus with which the information apparatus is to perform the data synchronization, and accesses, based on the information apparatus management data, the opposite information apparatus with which the information apparatus is to perform the synchronization process (Col. 8 lines 10-18).

23. With respect to claim 9, Alley further wherein a record which forms the information apparatus management data includes time stamp information which indicates updating date and time of the record (Col. 7 lines 47-51 and Col. 10 lines 18-39), and further comprising: a step, executed by the first information apparatus, of transmitting the information apparatus management data including the time stamp information to the second information apparatus which is the data synchronization destination (Col. 10 lines 18-39 and Col. 11 lines 12-38); and a step, executed by the

second information apparatus upon reception the data transmission from the first information apparatus, of comparing the time stamp information of the self information apparatus management data thereof and the time stamp information of the information apparatus management data transmitted from the first information apparatus with each other and fetching the newest information apparatus management data to update the self group management data thereof (Col. 11 lines 12-38 and Col. 8 lines 10-18).

24. With respect to claim 10, Alley further teaches a step, executed by the second information apparatus upon reception of the transmission of the information apparatus management data, of transmitting the information management data thereof including the time stamp information updated thereby to the first information apparatus; and a step, executed by the first information apparatus upon reception of the data transmission, of comparing, regarding the information apparatus management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest information apparatus management data to update the self information apparatus management data thereof (Col. 11 lines 27-39 and Col. 8 lines 10-18).

25. With respect to claim 11, Alley further teaches wherein each of said information apparatus possesses data which indicates last synchronization date and time of each of said information apparatus which serves as a source of data transmission and performs data updating only when the time stamp information is newer than the last synchronization date and time of the information apparatus which is the source of the data transmission (Col. 12 lines 4-15).

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26. With respect to claim 12, Alley further teaches wherein the data possessed by each of said information apparatus includes information which indicates an information apparatus of an origin of data for each record or each data item and does not perform the synchronization process regarding the record or data item when the information apparatus of the origin of the data is same as the information apparatus which is a destination of data synchronization (Col. 14 lines 42 - Col. 15 line 30: LOCAL IDENT).

27. With respect to claim 13, Alley further teaches information, wherein, in all of said information apparatus, or in all of those of said information apparatus which belong to a group in which the data synchronization process is performed, garbage collection is performed after data synchronization is performed for information that a record of a processing object is deleted (Col. 11 lines 32-38).

28. With respect to claim 15, Alley further teaches wherein each of said information apparatus is selected from among apparatus including a portable telephone set, a personal computer, a PDA, a PHS terminal, a subscriber telephone set or a slave machine of a subscriber telephone set (Col. 3 line 62 - Col. 4 line 7).

29. With respect to claim 16, Alley further teaches wherein, as a communication method between said information apparatus, a portable telephone network, a PHStelephone network, a cradle, the Internet, a subscriber telephone network, communication between a master machine and a slave machine of a subscriber telephone set, communication between slave machines of a subscriber telephone set or radio communication is used (Col. 7 line 64 - Col. 8 line 18).

30. With respect to Claim 17, Alley teaches a data synchronization method between a plurality of information apparatus for performing synchronization of data stored in said information apparatus, a record which forms data retained by each of said information apparatus including a first data item which indicates deletion information of the record and one or more second data items other than the first data item, comprising:

a step, executed by each of said information apparatus when self data is updated, of fetching first time stamp information regarding the first data item and fetching, regarding each of the second data items, second time stamp information which indicates updating date and time for each of the second data items (Col. 7 lines 47-51 and Col. 10 lines 18-39: updates for each device are tracked through data and time information which is used in synchronizing steps);

a step, executed by a first one of said information apparatus, of transmitting the self data thereof including the first and second time stamp information to a second one of said information apparatus (Col. 10 lines 18-39 and Col. 11 lines 12-38: data items and the time and data information is compared between the devices); and

a step, executed by the second information apparatus upon reception of the data transmitted from the first information apparatus, of performing comparison, regarding the first and second data items included in a record of an updating object, between deletion information of the records, between both of the first time stamp information, between the first time stamp information and the second time stamp information, or between both of the second time stamp information and fetching the newest data to

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update the self data thereof (Col. 11 lines 12-38 and Col. 12 lines 4-31: data items are updated according to the time and data information).

31. With respect to claim 18, Alley further teaches a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of transmitting the updated data to the first information apparatus (Col. 11 lines 27-39); and a step, executed by the first information apparatus upon reception of the data transmission from the second information apparatus, of performing comparison, regarding the first and second data items included in the record of the updating object, between both of the deletion information of the records, between both of the first time stamp information, between the first time stamp information and the second time stamp information, or between both of the second time stamp information with each other and fetching the newest data to update the self data thereof (Col. 11 lines 27-39).

32. With respect to claim 19, Alley further teaches wherein the data is formed from a plurality of data tables which are related to each other (Col. 10 line 32 - Col. 11 line 18: NUMSTORES).

33. With respect to claim 20, Alley further teaches wherein the record which forms the data includes data which indicates an attribute of the record and a data synchronization process regarding the record is performed in accordance with the attribute (Col. 11 line 43 - Col. 12 line 3: record indicators).

34. With respect to claim 24, Alley further teaches wherein each of said information apparatus includes information apparatus management data for

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managing access information to an opposite information apparatus with which the information apparatus is to perform the data synchronization, and accesses, based on the information apparatus management data, the opposite information apparatus with which the information apparatus is to perform the synchronization process (Col. 8 lines 10-18).

35. With respect to claim 25, Alley further teaches Alley further wherein a record which forms the information apparatus management data includes time stamp information which indicates updating date and time of the record (Col. 7 lines 47-51 and Col. 10 lines 18-39), and further comprising: a step, executed by the first information apparatus, of transmitting the information apparatus management data including the time stamp information to the second information apparatus which is the data synchronization destination (Col. 10 lines 18-39 and Col. 11 lines 12-38); and a step, executed by the second information apparatus upon reception the data transmission from the first information apparatus, of comparing the time stamp information of the self information apparatus management data thereof and the time stamp information of the information apparatus management data transmitted from the first information apparatus with each other and fetching the newest information apparatus management data to update the self group management data thereof (Col. 11 lines 12-38 and Col. 8 lines 10-18).

36. With respect to claim 26, Alley further teaches Alley further teaches a step, executed by the second information apparatus upon reception of the transmission of the information apparatus management data, of transmitting the information management

data thereof including the time stamp information updated thereby to the first information apparatus; and a step, executed by the first information apparatus upon reception of the data transmission, of comparing, regarding the information apparatus management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest information apparatus management data to update the self information apparatus management data thereof (Col. 11 lines 27-39 and Col. 8 lines 10-18).

37. With respect to claim 27, Alley further teaches wherein each of said information apparatus possesses data which indicates last synchronization date and time of each of said information apparatus which serves as a source of data transmission and performs data updating only when the time stamp information is newer than the last synchronization date and time of the information apparatus which is the source of the data transmission (Col. 12 lines 4-15).

38. With respect to claim 28, Alley further teaches wherein the data possessed by each of said information apparatus includes information which indicates an information apparatus of an origin of data for each record or each data item and does not perform the synchronization process regarding the record or data item when the information apparatus of the origin of the data is same as the information apparatus which is a destination of data synchronization (Col. 14 lines 42 - Col. 15 line 30: LOCAL IDENT).

39. With respect to claim 29, Alley further teaches wherein, in all of said information apparatus, or in all of those of said information apparatus which belong to a group in

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which the data synchronization process is performed, garbage collection is performed after data synchronization is performed for information that a record of a processing object is deleted (Col. 11 lines 32-38).

40. With respect to claim 31, Alley further teaches wherein each of said information apparatus is selected from among apparatus including a portable telephone set, a personal computer, a PDA, a PHS terminal, a subscriber telephone set or a slave machine of a subscriber telephone set (Col. 3 line 62 - Col. 4 line 7).

41. With respect to claim 32, Alley further teaches wherein, as a communication method between said information apparatus, a portable telephone network, a PHStelephone network, a cradle, the Internet, a subscriber telephone network, communication between a master machine and a slave machine of a subscriber telephone set, communication between slave machines of a subscriber telephone set or radio communication is used (Col. 7 line 64 - Col. 8 line 18).

42. With respect to claim 33, Alley teaches an information processing apparatus for use with an information processing system for performing data exchange between a plurality of information apparatus, comprising:

data storage means for storing data of the self information apparatus (Col. 7 lines 4-25);

data reception means for receiving data from an opposite information apparatus (Col. 10 lines 18-39 and Col. 11 lines 12-38: synchronization information is exchanged and compared);

data comparison means for comparing the data stored in said data storage means and the data received by said data reception means (Col. 10 lines 18-39 and Col. 11 lines 12-38: synchronization information is compared);

data updating means for updating the data of the self information apparatus based on a result of the data comparison by said data comparison means (Col. 11 lines 12-38 and Col. 12 lines 4-31: data items are updated according to the time and data information);

time management means for managing data updating time of the day in said data updating means (Col. 7 lines 47-51 and Col. 10 lines 18-39: timing means for tracking updates); and

data transmission means for transmitting the data possessed by the self information apparatus to the opposite information apparatus (Col. 8 lines 1-18).

Claim Rejections - 35 USC § 103

43. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

44. Claims 5-7, 21-23 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alley in view of U.S. Patent 6,732,144 by Kizu et al. (Kizu).

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45. With respect to claim 5, Alley teaches all the limitations of claim 1, but does not explicitly disclose wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs, group management data for managing a relationship regarding to which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process.

Kizu teaches dividing devices into arbitrary synchronization groups (Col. 5 line 65 - Col. 6 line 49), each defining a range within which data exchange is to be performed (Co. 11 line 40 - Col. 12 line 8). Each device includes group management data related to devices which belong to the same group and for managing a relationship regarding to which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process (Col. 7 line 37 - Col. 8 line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Kizu and modify it as indicated by Alley such that it further comprises wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs,

group management data for managing a relationship regarding to which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process. One would be motivated to have this, as it is desirable to provide a synchronization process between arbitrary devices without a server and in a one to many manner (In Kizu: Col. 2 line 1-26).

46. With respect to claim 6, Alley further teaches a step, executed by each of said information apparatus, of fetching time stamp information which indicates updating date and time of each record of the group management data (In Alley: Col. 7 lines 47-51 and Col. 10 lines 18-39, and In Kizu: Col. 15 line 37 - Col. 16 line 14);

a step, executed by the first information apparatus, of transmitting the group management data including the time stamp information to the second information apparatus which is a destination of data synchronization (In Alley: Col. 10 lines 18-39 and Col. 11 lines 12-38, and In Kizu: Col. 15 line 37 - Col. 16 line 14); and

a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of comparing the time stamp information of the self group management data thereof and the time stamp information of the group management data transmitted from the first information apparatus with each other and fetching the newest group management data to update the self group management data thereof (In Alley: Col. 11 lines 12-38 and Col. 12 lines 4-31, and In Kizu: Col. 15 line 37 - Col. 16 line 14).

47. With respect to claim 7, Alley further teaches a step, executed by the second information apparatus upon reception of the transmission of the group management data, of transmitting the group management data thereof including the time stamp information updated thereby to the first information apparatus; and a step, executed by the first information-apparatus upon reception of the data transmission from the second information apparatus, of comparing, regarding the group management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest group management data information to update the self group management data thereof (In Alley: Col. 11 lines 27-39, and In Kizu: Col. 15 line 37 - Col. 16 line 14).

48. With respect to claim 21, Alley does not explicitly disclose wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs, group management data for managing a relationship regarding to which group each of said information apparatus belongs, and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process.

Kizu teaches dividing devices into arbitrary synchronization groups (Col. 5 line 65 - Col. 6 line 49), each defining a range within which data exchange is to be performed (Co. 11 line 40 - Col. 12 line 8). Each device includes group management data related to devices which belong to the same group and for managing a relationship regarding to

which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process (Col. 7 line 37 - Col. 8 line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Kizu and modify it as indicated by Alley such that it further comprises wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs, group management data for managing a relationship regarding to which group each of said information apparatus belongs, and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process. One would be motivated to have this, as it is desirable to provide a synchronization process between arbitrary devices without a server and in a one to many manner (In Kizu: Col. 2 line 1-26).

49. With respect to claim 22, Alley further teaches a step, executed by each of said information apparatus, of fetching time stamp information which indicates updating date and time of each record of the group management data (In Alley: Col. 7 lines 47-51 and Col. 10 lines 18-39, and In Kizu: Col. 15 line 37 - Col. 16 line 14);

a step, executed by the first information apparatus, of transmitting the group management data including the time stamp information to the second information

apparatus which is a destination of data synchronization (In Alley: Col. 10 lines 18-39 and Col. 11 lines 12-38, and In Kizu: Col. 15 line 37 - Col. 16 line 14); and

a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of comparing the time stamp information of the self group management data thereof and the time stamp information of the group management data transmitted from the first information apparatus with each other and fetching the newest group management data to update the self group management data thereof (In Alley: Col. 11 lines 12-38 and Col. 12 lines 4-31, and In Kizu: Col. 15 line 37 - Col. 16 line 14).

50. With respect to claim 23, Alley further teaches a step, executed by the second information apparatus upon reception of the transmission of the group management data, of transmitting the group management data thereof including the time stamp information updated thereby to the first information apparatus; and a step, executed by the first information-apparatus upon reception of the data transmission from the second information apparatus, of comparing, regarding the group management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest group management data information to update the self group management data thereof (In Alley: Col. 11 lines 27-39, and In Kizu: Col. 15 line 37 - Col. 16 line 14).

51. With respect to claim 34, Alley teaches an information processing apparatus for use with an information processing system for performing data exchange between a plurality of information apparatus, comprising:

data storage means for storing data of the self information apparatus (Col. 7 lines 4-25);

data reception means for receiving data from an opposite information apparatus (Col. 10 lines 18-39 and Col. 11 lines 12-38: synchronization information is exchanged and compared);

data comparison means for comparing the data stored in said data storage means and the data received by said data reception means (Col. 10 lines 18-39 and Col. 11 lines 12-38: synchronization information is compared);

data updating means for updating the data of the self information apparatus based on a result of the data comparison by said data comparison means (Col. 11 lines 12-38 and Col. 12 lines 4-31: data items are updated according to the time and data information);

time management means for managing data updating time of the day in said data updating means (Col. 7 lines 47-51 and Col. 10 lines 18-39: timing means for tracking updates); and

data transmission means for transmitting the data possessed by the self information apparatus to the opposite information apparatus (Col. 8 lines 1-18).

Alley does not explicitly disclose said plurality of information apparatus being divided into groups of apparatus within which the apparatus perform data exchange with each other, each of said information apparatus possessing group management data for managing a group belonging destination regarding all of those of said information apparatus which belong to a group to which the self information apparatus belongs; and

group management data storage means for storing group management data of the self information apparatus; group management data comparison means for comparing the data stored in said group management data storage means and group management data of the opposite information apparatus transmitted through said data reception means with each other; group management data updating means for updating the group management data of the self information apparatus based on a result of the comparison by said group management data comparison means.

Kizu teaches dividing devices into arbitrary synchronization groups (Col. 5 line 65 - Col. 6 line 49), each defining a range within which data exchange is to be preformed (Col. 11 line 40 - Col. 12 line 8). Each device includes group management data related to devices which belong to the same group and for managing a relationship regarding to which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process (Col. 7 line 37 - Col. 8 line 5). Group synchronization for devices in the group provides for updates to the group management data (Col. 7 line 37 - Col. 8 line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Kizu and modify it as indicated by Alley such that it further comprises said plurality of information apparatus being divided into groups of apparatus within which the apparatus perform data exchange with each other, each of said information apparatus possessing group management data for managing a group belonging destination regarding all of those of said information

apparatus which belong to a group to which the self information apparatus belongs; and group management data storage means for storing group management data of the self information apparatus; group management data comparison means for comparing the data Stored in said group management data storage means and group management data of the opposite information apparatus transmitted through said data reception means with each other; group management data updating means for updating the group management data of the self information apparatus based on a result of the comparison by said group management data comparison means. One would be motivated to have this, as it is desirable to provide a synchronization process between arbitrary devices without a server and in a one to many manner (In Kizu: Col. 2 line 1-26).

52. Claims 14 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alley in view of U.S. Patent Application Publication 2001/0011308 by Clark et al. (Clark).

53. With respect to claim 14, Alley further teaches essentially teaches performing an automated synchronization process when the user chooses (Col. 9 line 66 - Col. 10 line 4). Alley does not explicitly disclose wherein the data synchronization process is performed automatically in accordance with a predetermined time schedule.

Clark teaches an automated synchronization process can be performed according to a variety of user selectable levels. This can include performing the process in accordance with a predetermined time schedule (Page 1-2, [0010]).

Because both Alley and Clark teach methods for performing an automated synchronization process, it would have been obvious to one skilled in the art to substitute one method for the other to achieve the predictable result of performing an automated synchronization process.

54. With respect to claim 30, Alley further teaches essentially teaches performing an automated synchronization process when the user chooses (Col. 9 line 66 - Col. 10 line 4). Alley does not explicitly disclose wherein the data synchronization process is performed automatically in accordance with a predetermined time schedule.

Clark teaches an automated synchronization process can be performed according to a variety of user selectable levels. This can include performing the process in accordance with a predetermined time schedule (Page 1-2, [0010]).

Because both Alley and Clark teach methods for performing an automated synchronization process, it would have been obvious to one skilled in the art to substitute one method for the other to achieve the predictable result of performing an automated synchronization process.

Conclusion

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

56. U.S. Patent 5,261,094 by Everson. November 9, 1993. - includes synchronization of databases through the use of update tables tracked by time and date.

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57. U.S. Patent 6,295,541 by Bodnar et al. September 25, 2001. - discloses synchronization of two or more datasets including the comparison of timestamps.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 571-272-3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Lazaro
September 25